# Exercise Week12

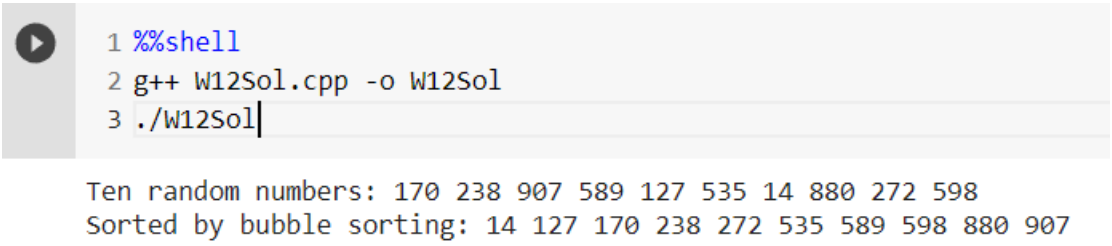
1. Bubble Sorting

Sorting elements into an order is a popular issue in computer science area. Leveraging speed and efficiency, many sorting alogorithm exists. Through the entire array, Bubble sorting is one basic sorting algortithm which continuously compares two adjacent elements and swap their postion if the order is wrong. It mimics how a bubble moves up in a cup of water. Take ascending sorting as an example, the bubble sorting should keeping push the greatest number to the end of the array.

Example (ascending):

1. 8 7 6 9
2. 7 8 6 9
3. 7 6 8 9
1. 7 6 8 9
2. 6 7 8 9
1. 6 7 8 9

Please randomly generate 10 integer elements (1~1000) in your array and sort them ascendingly by bubble sorting. Create a function: void mySwap(int S[], i, j) to handle swapping between two adjacent elements S[i] and S[j].



```
%%shell
g++ W12Sol.cpp -o W12Sol
./W12Sol
```

```
Ten random numbers: 170 238 907 589 127 535 14 880 272 598
Sorted by bubble sorting: 14 127 170 238 272 535 589 598 880 907
```

Please name your .ipynb file as YourID_Week12.ipynb and upload it to moodle system.
(ex. H3700001_Week12.ipynb)